

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: August 28, 2002, 17:06:53 ; Search time 75.04 Seconds

(without alignments)
333.044 Million cell updates/sec

Title: US-09-502-984B-1

Perfect score: 1194
Sequence: 1 APPPNLPDPKFEKALIAA.....GGFWMSAMSEPVSLTPSDLD 225

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 747574 seqs, 111073796 residues

Total number of hits satisfying chosen parameters: 747574

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database :

1: /SIDSL/gcgdata/hold-geneseq/geneseqp-emb1/AA1980.DAT:*
2: /SIDSL/gcgdata/hold-geneseq/geneseqp-emb1/AA1981.DAT:*
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4: /SIDSL/gcgdata/hold-geneseq/geneseqp-emb1/AA1983.DAT:*
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21: /SIDSL/gcgdata/hold-geneseq/geneseqp-emb1/AA2000.DAT:*
22: /SIDSL/gcgdata/hold-geneseq/geneseqp-emb1/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	1194	100.0	225 21 AAB21685	Human mature eryth
2	1194	100.0	438 21 AAY44622	Truncated human Ep
3	1194	100.0	488 18 AAW08349	EpoRfc fusion prot
4	1194	100.0	503 21 AAB13012	Q-tagged erythropro
5	1194	100.0	508 11 AAR06512	EPO receptor. Hom
6	1194	100.0	508 16 AAR70032	Human erythropoiet
7	1194	100.0	508 15 AAR6503	Human erythropoiet
8	1187	99.4	508 15 AAR47518	Human erythropoiet
9	1186	99.3	438 21 AAY44623	Human EPO receptor
10	1112	93.1	211 21 AAB21686	R154C truncated hu
11	982.5	82.3	507 11 AAR06511	Human mature eryth
				EPO receptor seque

12	982.5	82.3	507 15 AAR47517	MEL EPO receptor.
13	982.5	82.3	507 16 AAR69502	Mouse erythropoiet
14	975.5	81.7	507 15 AAR50327	Mouse soluble EPO
15	966.5	80.9	265 15 AAR50326	Mouse soluble EPO
16	222.5	17.2	117 21 AAY94338	Human cell surface
17	205	18.6	625 22 AAU00377	Mouse thrombopoiet
18	201	16.8	632 16 AAR75941	Soluble murine MPL
19	200	16.8	633 16 AAR79908	Type I MPL recepto
20	200	16.8	633 16 AAR79053	Mouse type I MPL r
21	200	16.8	633 17 AAR98948	Mouse type I MPL r
22	200	16.8	633 17 AAW03513	Mouse type I MPL r
23	200	16.8	633 21 AAY52166	Mouse type I MPL r
24	198	16.6	626 16 AAR75939	Murine myeloprolif
25	185	15.5	635 13 AAR23970	MPL env protein w
26	185	15.5	635 16 AAR75940	Human myeloprolife
27	185	15.5	635 22 AAU00376	Human thrombopoiet
28	169	14.2	30 17 AAR89963	Synthetic human er
29	160.5	13.4	303 20 AAW70845	Human zcyto5 Vari
30	160.5	13.4	350 19 AAW55015	Amino acid sequenc
31	160.5	13.4	350 22 AAE00824	Human Nf6 haemopo
32	160.5	13.4	389 20 AAW70846	Human zcyto5 Vari
33	160.5	13.4	389 20 AAW70848	Human zcyto5 Vari
34	160.5	13.4	389 20 AAW70849	Human zcyto5 Vari
35	160.5	13.4	389 20 AAW70844	Human zcyto5 Vari
36	160.5	13.4	392 20 AAW70840	Human zcyto5 Vari
37	160.5	13.4	408 19 AAW59805	Amino acid sequenc
38	160.5	13.4	408 20 AAY26338	Human U4 haematopo
39	160.5	13.4	410 20 AAY29779	Human DNAK soluble
40	160.5	13.4	410 21 AAB19588	Human cytokine-11k
41	160.5	13.4	410 22 AAB36647	Human cytokine rec
42	160.5	13.4	421 22 AAE00826	Murine haemopoiet
43	160.5	13.4	422 20 AAY26339	Human U4 haematopo
44	160.5	13.4	422 20 AAY06479	Human tumour-assoc
45	160.5	13.4	422 20 AAY17825	Human PRO327 prote

ALIGNMENTS

RESULT 1	
AAB21685	standard; peptide: 225 AA.
ID	AAB21685
AC	AAB21685;
DT	21-DEC-2000 (first entry)
DE	Human mature erythropoietin receptor EPOR extracellular domain #1.
KW	Ligand: cell surface receptor; erythropoietin; EPOR; human.
OS	Homo sapiens.
PN	WO200047612-A2.
PD	17-AUG-2000.
PF	11-FEB-2000; 2000WO-US03665.
PR	11-FEB-1999; 99US-0120009.
PR	29-APR-1999; 99US-0131674.
PA	(XENC-) XENCOR INC.
PI	Luo P, Dahlyat B;
DR	WPI, 2000-549135/50.
PT	Screening for ligand analogs and agents which modulate ligand-receptor
PT	binding, comprises adding a test ligand to a non-naturally occurring
PS	cell surface receptor analog -
	Example 1, Fig 8; 82pp; English.

XX The present invention relates to a method for screening for a ligand
 CC analog, comprising adding a candidate ligand to a non-naturally occurring
 CC cell surface receptor analog e.g. erythropoietin receptor (EPOR), and
 CC determining the binding of the ligand to the analog. The present sequence
 CC is a mature human erythropoietin receptor (EPOR) extracellular domain.
 CC This sequence may be used in the present invention as a cell surface
 CC receptor analog.

XX Sequence 225 AA;

Query Match 100.0%; Score 1194; DB 21; Length 225;
 Best Local Similarity 100.0%; Pred. No. 1.4e-112;

Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPNNLPDPKESKAAIIAARGPEELICFERLEDVCFWEBAASGVGNGYSFSYQLE 60
 DB 1 appnnlpdpkfskaallaargpeellcfterledvctweeasgvqngysfsyqle 60
 QY 61 DEPWKICRLHQAPTARGAVRFWCSLPTADTSSFVPLELRYTAASGAPRYRHVHINEVVL 120
 DB 61 depwkicrlhqaptargavrfwcslptadtsfvpelrlrytaasgapryrhvlinevvl 120
 QY 121 LDAPVGLVARLADSGHVLRMLPPEPTPMTSHIRREVDVSAGNGAGSVORVEILEGRTE 180
 DB 121 ldapvglvarladesghvvlrmlppeptpmtshirrevdvsagngagsvorveilegrte 180
 QY 181 CVLSNLRGRTRYTFARARMAEPSPFGFSWAMSEPSVLLTPPSLD 225
 DB 181 cvlsnlrgtrtytfavrarmaepsfgfswawsepsvlltppslld 225

RESULT 2

ID AAY44622 standard; Protein; 438 AA.

XX AAY44622;

DT 07-APR-2000 (first entry)

DE Truncated human EPOR(t439).

KW Truncated human EPOR; erythropoietin receptor; hypersensitive EPOR(t439);

KW mutant human EPOR; EPOR signaling; cancer; infectious disease; HIV;

KW sickle cell anaemia; cytostatic; antimicrobial; antiviral;

KW immunostimulant; anti-anaemic.

OS Homo sapiens.

PN WO967360-A2.

PD 29-DEC-1999.

XX 25-JUN-1999; 99MO-CA00606.

PR 25-JUN-1998; 98CA-2241576.

PR 25-JUN-1999; 99CA-2260332.

PA (HEMO-) HEMOSOL INC.

PI Bell D, Matthews KE, Mueller SG;

DR WPI; 2000-136979/12.

XX P-PSDB; AAZ49634.

PT Serum free defined medium useful for the efficient culture of stem

XX cells used for production of hemoglobin

PS Example 6; Fig 9; 61pp; English.

CC The present sequence is truncated human EPOR (erythropoietin receptor).

CC Transfection of constitutively active EPOR(t439) by electroporation into

CC a cytokine-dependent cell line supports cell population expansion in the
 CC absence of exogenous cytokines. Mutant human EPOR is used in treatment of
 CC disorders related to inadequate EPOR signaling. The transfected cells
 CC may also used in gene therapy to treat cancer, infectious diseases
 CC (e.g. HIV), sickle cell anemia, and conditions related to abnormal
 CC expression of erythropoietin.

XX Sequence 438 AA;

Query Match 100.0%; Score 1194; DB 21; Length 438;
 Best Local Similarity 100.0%; Pred. No. 3.3e-112;

Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPNNLPDPKESKAAIIAARGPEELICFERLEDVCFWEBAASGVGNGYSFSYQLE 60
 DB 25 appnnlpdpkfskaallaargpeellcfterledvctweeasgvqngysfsyqle 84
 QY 61 DEPWKICRLHQAPTARGAVRFWCSLPTADTSSFVPLELRYTAASGAPRYRHVHINEVVL 120
 DB 61 depwkicrlhqaptargavrfwcslptadtsfvpelrlrytaasgapryrhvlinevvl 144
 QY 121 LDAPVGLVARLADSGHVLRMLPPEPTPMTSHIRREVDVSAGNGAGSVORVEILEGRTE 180
 DB 145 ldapvglvarladesghvvlrmlppeptpmtshirrevdvsagngagsvorveilegrte 204
 QY 181 CVLSNLRGRTRYTFARARMAEPSPFGFSWAMSEPSVLLTPPSLD 225
 DB 205 cvlsnlrgtrtytfavrarmaepsfgfswawsepsvlltppslld 249

RESULT 3

ID AAM08349 standard; Protein; 488 AA.

XX AAM08349;

DT 14-MAR-1997 (first entry)

DE EPORFc fusion protein.

KW Receptor agonist; antibody; erythropoietin receptor; EPOR;

KW immunogen; antigen; metallochionein; promoter; IgG1; Fc;

XX Chimeric Homo sapiens;

OS Chimeric synthetic.

XX Location/Qualifiers

FT Key 1..250

FT Domain /label= "EPOR-ECD

FT /note= "erythropoietin receptor extracellular

FT Cleavage-site 251..254

FT /note= "Factor Xa cleavage site"

FT Domain 255..488

FT /label= "Fc

FT /note= "human IgG1 Fc sequence"

PN WO9640231-A1.

PD 19-DEC-1996.

XX 07-JUN-1996; 96MO-US09613.

PR 07-JUN-1995; 95US-0474673.

PA (SMK) SMITHKLINE BEECHAM CORP.

XX Erickson-Miller CL, Young PR;

DR WPI; 1997-051900/05.

DR N-PSDB; AAT48800.

XX Recombinant immunogen corresp. to dimeric form of a receptor - used
 PT for generating antibodies able to act as receptor agonists, esp. of
 PT erythropoietin receptor for treating anaemia
 XX
 PS Example 1; Page 39-41; 83pp: English.
 XX
 CC A fusion protein (AAM08349) encoded by plasmid mta1sEporFc (AAT48800)
 CC comprises the human erythropoietin receptor (Epor) extracellular
 CC domain fused (via a Factor Xa cleavage sequence) to the Fc portion
 CC of human IgG1. It can be expressed e.g. in transfected Drosophila
 CC S2 cells upon induction with copper sulphate. The cells secrete
 CC EporFc as a dimeric molecule due to the affinity of the Fc moiety
 CC for itself. The dimeric receptor can be used as an immunogen to
 CC generate antibodies (monoclonal, polyclonal, chimeric, humanised)
 CC able to act as Ecor agonists for use in treatment of anaemia.
 CC
 SQ Sequence 488 AA;

Query Match 100.0%; Score 1194; DB 18; Length 488;
 Best Local Similarity 100.0%; Pred. No. 3.8e-112;
 Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPNLPDPKFEKSKAALLAARGPEELCTFERLEDVLCWEBAASAGVPGNYSFYQLE 60
 DB 25 APPNLPDPKFEKSKAALLAARGPEELCTFERLEDVLCWEBAASAGVPGNYSFYQLE 84
 QY 61 DEPMKLCRLHOAPTAGAVRFWCSLPTADTSFVPLELRVTASGAPRHRVHINEVYL 120
 DB 85 DEPMKLCRLHOAPTAGAVRFWCSLPTADTSFVPLELRVTASGAPRHRVHINEVYL 144
 QY 121 LDAPVGLVARLDESGHVLRWLPPETPMTSHIREVDVSAAGSVOYVEILEGRTE 180
 DB 145 LDAPVGLVARLDESGHVLRWLPPETPMTSHIREVDVSAAGSVOYVEILEGRTE 204
 QY 181 CVLSNLRGRTRTTFAVRARMAEPSFGFWSANSEPVSLITPSDLD 225
 DB 205 CVLSNLRGRTRTTFAVRARMAEPSFGFWSANSEPVSLITPSDLD 249

RESULT 4
 AAB13012
 ID AAB13012 standard; Protein; 503 AA.
 AC AAB13012;
 XX
 DT 08-DEC-2000 (first entry)
 DE Q-tagged erythropoietin (EPO) receptor protein.
 XX
 KW Site specific label: detection: interaction screening; transglutaminase;
 KW erythropoietin receptor; EPO.
 XX
 OS Synthetic.
 XX
 PN WO200043492-A2.
 PD 27-JUL-2000.
 XX
 PF 20-JAN-2000; 2000WO-US01481.
 PR 22-JAN-1999; 99US-0117327.
 XX
 PA (SMIK) SMITHKLINE BEECHAM CORP.
 XX
 PI Tew DG, Powell DJ, Meek TD, Chen W;
 DR WPI; 2000-499222/44.
 XX
 PT Screening for a candidate compound for use in bioassays comprises
 PT contacting the candidate molecule with a labelled modified protein and
 PT detecting the label to identify interaction of the two molecules -

XX
 PS Example 4; Page 26; 49pp: English.
 XX
 CC This invention relates to methods for the site specific modification of
 CC a protein, and to a method for screening for a candidate compound which
 CC interacts with first protein. The screening method comprises contacting
 CC the candidate molecule with a labelled modified first protein and
 CC detecting the label to identify interaction of the labelled modified
 CC first protein and candidate compound. The first protein is modified to
 CC contain a peptide, represented by sequence AAB13005. The method is
 CC used to label proteins at specific sites. The present sequence
 CC represents a Q-tagged erythropoietin (EPO) receptor constructed in an
 CC example of the method of the invention.
 XX
 SQ Sequence 503 AA;

Query Match 100.0%; Score 1194; DB 21; Length 503;
 Best Local Similarity 100.0%; Pred. No. 4e-112;
 Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPNLPDPKFEKSKAALLAARGPEELCTFERLEDVLCWEBAASAGVPGNYSFYQLE 60
 DB 25 APPNLPDPKFEKSKAALLAARGPEELCTFERLEDVLCWEBAASAGVPGNYSFYQLE 84
 QY 61 DEPMKLCRLHOAPTAGAVRFWCSLPTADTSFVPLELRVTASGAPRHRVHINEVYL 120
 DB 85 DEPMKLCRLHOAPTAGAVRFWCSLPTADTSFVPLELRVTASGAPRHRVHINEVYL 144
 QY 121 LDAPVGLVARLDESGHVLRWLPPETPMTSHIREVDVSAAGSVOYVEILEGRTE 180
 DB 145 LDAPVGLVARLDESGHVLRWLPPETPMTSHIREVDVSAAGSVOYVEILEGRTE 204
 QY 181 CVLSNLRGRTRTTFAVRARMAEPSFGFWSANSEPVSLITPSDLD 225
 DB 205 CVLSNLRGRTRTTFAVRARMAEPSFGFWSANSEPVSLITPSDLD 249

RESULT 5
 AAR06512
 ID AAR06512 standard; protein; 508 AA.
 AC AAR06512;
 XX
 DT 04-JAN-1991 (first entry)
 DE EPO receptor.
 XX
 KW Erythropoietin; Diamond Blackfan anaemia; polycythemia vera.
 XX
 OS Homo sapiens.
 XX
 PN WO9008822-A.
 PD 09-AUG-1990.
 XX
 PF 01-FEB-1990; 90WO-US00635.
 PR 03-FEB-1989; 89US-0306503.
 XX
 PA (GENE-) GENETICS INST INC.
 PA (WHITT-) WHITEHEAD INST.
 XX
 PI D'andrea A, Wong G;
 DR WPI; 1990-260931/34.
 DR N-PSDB; AA005748.
 XX
 PT Erythropoietin receptor and gene - used for developing reagents
 PT and systems to control and study erythropoiesis.
 PS Disclosure; Fig 2; 53pp: English.
 XX

CC The sequence was deduced from DNA obtd. from a clone isolated from
 CC a commercially available human genomic cDNA library in phage
 CC lambda fix (Stratagene). The sequence encodes a type I trans-
 CC membrane protein with binding affinity for EPO. The gene and
 CC recombinant EPO receptor produced on expression of the DNA are
 CC used to develop reagents and systems to control and study
 CC erythropoiesis. It is believed that the EPO receptor is dys-
 CC functional in individuals with Diamond Blackfan anaemia, and may
 CC be hyperactive in polycythemia vera.
 CC See also AAR06511 (murine EPO receptor).

XX Sequence 508 AA;

Query Match 100.0%; Score 1194; DB 11; Length 508;
 Best Local Similarity 100.0%; Pred. No. 4e-112;
 Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPPNLPDRFESKALLAARGPEELLCTFEREDLVCFWEAASAGVGNGNSFSYQLE 60
 DB 25 appnlpdpkfeskkaallaargpeellctferedlvctfweaasagvgngnsfsygle 84
 QY 61 DEPMKLCRLHOAPTARGAVRFWCSLPADTSSFPLELRVTASGAPRYHRVHINEVVL 120
 DB 85 depmkicrlhgaprtargavrfwcslpadtssfpvlelrvtasagpryhvrhinevvl 144
 QY 121 LDAPVGLVARLADESGHVLRMLPPETPMTSHIRREVDVSAGNGAGSVORVEILEGRTE 180
 DB 145 ldapvglvvarladesghvvlrwlppetpmtshirryevdvsagngagsvqrveillegrte 204
 QY 181 CVLSNLRGRTTYFAVRARMAEPSEFGFWSAMSEPSVSLTPSLD 225
 DB 205 cvlsnlrgtrlytfavrarmaepsfgfwsawsepsvsltlpsld 249

RESULT 6

ID AAR70032 standard; Protein; 508 AA.

AC AAR70032;

DT 07-OCT-1995 (first entry)

DE Human erythropoietin receptor.

KW Erythropoietin receptor; extracellular domain.

OS Homo sapiens.

XX Location/Qualifiers

FT Domain 25..250

FT /note= "extracellular domain"

FT Domain 9..83

FT /note= "extracellular domain"

FT Misc-difference 25..29

FT /note= "Forward primer AAO82991 specific site"

FT Misc-difference 222..226

FT /note= "reverse primer AAO82992 specific site"

PN WO9505469-A.

PD 23-FEB-1995.

PF 15-AUG-1994; 94WO-US09298.

PR 16-AUG-1993; 93US-0106815.

XX (LEEDJ/) LEE J Y.

XX Lee JY;

DR WPI: 1995-098767/13.

DR N-PSDB; AAO82990.

XX New pure human erythropoietin receptor fragment - obtd. by
 PT expression as a fusion protein having a thrombin proteolytic
 PT cleavage site.

PS Disclosure: Page 27-29; 42pp; English.

CC The full-length erythropoietin receptor (EPO-R) is given.
 CC Extracellular domains are expressed from vector plasmid pEX-2t as
 CC fusion proteins with glutathione-S-transferase. The domains are
 CC used for investigating the structure of the EPO-R and for
 CC identifying factors involved in regulating differentiation and
 CC proliferation mechanisms in erythroid progenitor cells. They can
 CC also be used for identifying and quantitating EPO and EPO-R as well
 CC as in understanding haematopoietic malignancy and some
 CC cardiovascular system disorders.

XX Sequence 508 AA;

Query Match 100.0%; Score 1194; DB 16; Length 508;
 Best Local Similarity 100.0%; Pred. No. 4e-112;
 Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPPNLPDRFESKALLAARGPEELLCTFEREDLVCFWEAASAGVGNGNSFSYQLE 60
 DB 25 appnlpdpkfeskkaallaargpeellctferedlvctfweaasagvgngnsfsygle 84
 QY 61 DEPMKLCRLHOAPTARGAVRFWCSLPADTSSFPLELRVTASGAPRYHRVHINEVVL 120
 DB 85 depmkicrlhgaprtargavrfwcslpadtssfpvlelrvtasagpryhvrhinevvl 144
 QY 121 LDAPVGLVARLADESGHVLRMLPPETPMTSHIRREVDVSAGNGAGSVORVEILEGRTE 180
 DB 145 ldapvglvvarladesghvvlrwlppetpmtshirryevdvsagngagsvqrveillegrte 204
 QY 181 CVLSNLRGRTTYFAVRARMAEPSEFGFWSAMSEPSVSLTPSLD 225
 DB 205 cvlsnlrgtrlytfavrarmaepsfgfwsawsepsvsltlpsld 249

RESULT 7

ID AAR69503 standard; Protein; 508 AA.

AC AAR69503;

DT 11-AUG-1995 (first entry)

DE Human erythropoietin receptor.

KW Erythropoietin receptor; anemia therapy; diagnostic.

OS Homo sapiens.

XX Location/Qualifiers

FT Peptide 1..24

FT /note= "signal peptide"

FT Protein 25..508

FT /note= "mature protein"

FT Modified-site 76..79

FT /note= "N-glycosylation site"

FT Domain 251..272

FT /note= "transmembrane region"

PN US5378808-A.

PD 03-JAN-1995.

PF 03-FEB-1989; 89US-0306503.

PR 03-FEB-1989; 89US-0306503.

PR 25-MAR-1991; 91US-0678877.

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PR 10-JUN-1993; 93US-0075069.
XX
XX (GENEX ) GENETICS INST INC.
XX
XX D'andrea A, Jones SS, Wong GG;
XX
XX MPI: 1995-051310/07.
XX N-PSDB: AAO81892.
XX
XX New recombinant erythropoietin receptor polypeptide(s) - used for
XX detection, purification, and therapy and for prodn. of antibodies for
XX detection and therapy
XX
XX Claim 2; Fig 9; 24pp; English.
XX
XX The sequence is that of a 55-kDa human erythropoietin receptor. The
XX receptor polypeptide may be used in purification and detection of
XX erythropoietin, and in production of antibodies for anemia therapy.
XX The polypeptide may also be used for treating individuals
XX who are hypersensitive to erythropoietin or who have elevated
XX erythropoietin levels. They may be used in therapy of e.g. primary
XX or secondary proliferative polycythemia.
XX
XX Sequence 508 AA;
SQ

Query Match 100.0%; Score 1194; DB 16; Length 508;
Best Local Similarity 100.0%; Pred. No. 4e-112;
Matches 225; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 APPMLPPKFEESKALALAAKGPEELLCTFERLEDVLCFMEPAASAGVPGNYSFYOLE 60
DB 25 appmlppkfteskaallaargpeellctferledvlfvweeasagvpgnysfsygle 84
QY 61 DEPWKLCRLHQAPTARGAVRFWCSLPTADTSSFVPLELRVTAASGAPRYHRYIHNEVYL 120
DB 85 depwklcrlhqaaptaargavrfwcslptadtssfvpelrlvtaasgapryhryihnevyl 144
QY 121 LDAPVGLVARLADSEGHVVLWMLPPETPMTHSHIRYEVDSAGNAGSVORVEIEGRT 180
DB 145 ldapvglvarladesghvvlwmlppeetpmtshiryevdvsaagvsgvqvlellegrt 204
QY 181 CVLSNLGRTRTYFAVRARMAEPSFGFWSAMSEPVSLTPSDLD 225
DB 205 cvlsnlgrtrtytfavrarmaepsfgfwsawsepvsltlpsdl 249

RESULT 8
AAR47518
ID AAR47518 standard; Protein: 508 AA.
XX
XX AAR47518;
AC
XX
XX 24-JUN-1994 (first entry)
XX
XX Human EPO receptor.
XX
XX Erythropoietin receptor; recombinant; murine; anaemia.
XX
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX Peptide 1..24
XX Protein /note= "signal peptide"
XX /note= "mature EPO receptor"
XX Region 251..272
XX /note= "putative transmembrane domain"
XX
XX US5278065-A.
XX
XX 11-JAN-1994.
XX

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PF 03-FEB-1989; 89US-0306503.
XX
XX 03-FEB-1989; 89US-0306503.
XX
XX 25-MAR-1991; 91US-0678877.
XX
XX (CHIL-) CHILDRENS MEDICAL CENT.
XX (GENY ) GENETICS INST INC.
XX (WHD ) WHITEHEAD INST BIOMEDICAL RES.
XX
XX D'andrea A, Jones SS, Wong GG;
XX
XX MPI: 1994-025409/03.
XX N-PSDB: AAO53995.
XX
XX Recombinant DNA encoding erythropoietin receptor - used to
XX develop prods. for study, treatment or diagnosis of disorders in
XX which receptor is dysfunctional
XX
XX Disclosure; Fig 9; 24pp; English.
XX
XX Mouse erythroleukemia (MEL) cells were used to construct a cDNA
XX library. The cDNA was used to transfect COS-1 cells and these were
XX screened for radiolodinated erythropoietin (EPO) binding to isolate
XX cDNA encoding the EPO receptor. This cDNA was used as a probe to
XX screen a human genomic cDNA library to obtain DNA encoding the human
XX EPO receptor. The cDNA may be used to study, treat or diagnose
XX disorders in which the EPO receptor is dysfunctional. The EPO
XX receptor may also be used to raise antibodies or for treating
XX hypersensitivity to EPO or who have elevated levels of EPO. The prod.
XX is pref. used for treating anaemias, primary proliferative polycythemia
XX and secondary polycythemia.
XX See also AAR47517.
XX
XX Sequence 508 AA;
SQ

Query Match 99.4%; Score 1187; DB 15; Length 508;
Best Local Similarity 99.1%; Pred. No. 2e-111;
Matches 223; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 APPMLPPKFEESKALALAAKGPEELLCTFERLEDVLCFMEPAASAGVPGNYSFYOLE 60
DB 25 appmlppkfteskaallaargpeellctferledvlfvweeasagvpgnysfsygle 84
QY 61 DEPWKLCRLHQAPTARGAVRFWCSLPTADTSSFVPLELRVTAASGAPRYHRYIHNEVYL 120
DB 85 depwklcrlhqaaptaargavrfwcslptadtssfvpelrlvtaasgapryhryihnevyl 144
QY 121 LDAPVGLVARLADSEGHVVLWMLPPETPMTHSHIRYEVDSAGNAGSVORVEIEGRT 180
DB 145 ldapvglvarladesghvvlwmlppeetpmtshiryevdvsaagvsgvqvlellegrt 204
QY 181 CVLSNLGRTRTYFAVRARMAEPSFGFWSAMSEPVSLTPSDLD 225
DB 205 cvlsnlgrtrtytfavrarmaepsfgfwsawsepvsltlpsdl 249

RESULT 9
AAY44623
ID AAY44623 standard; Protein: 438 AA.
XX
XX AAY44623;
AC
XX
XX 07-APR-2000 (first entry)
XX
XX R154C truncated human Epor(t439).
XX
XX Truncated human Epor: erythropoietin receptor; hypersensitive Epor(t439);
XX mutant human Epor; Epor signalling; cancer; infectious disease; HIV;
XX sickle cell anaemia; cytostatic; antimicrobial; antiviral;
XX immunostimulant; anti-anaemic.
XX
XX Homo sapiens.
XX

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XX Key Location/Qualifiers
FH Misc-difference 154
FT /note= "Wild type Arg. substituted by Cys"
XX
XX WO9967360-A2.
XX
XX 29-DEC-1999.
XX
XX 25-JUN-1999; 99WO-CA00606.
XX
XX 25-JUN-1998; 98CA-2241576.
XX
XX 25-JAN-1999; 99CA-2260332.
XX
XX (HEMO-) HEMOSOL INC.
XX
XX Bell D, Matthews KE, Mueller SG;
XX
XX WPI: 2000-136979/12.
XX
XX N-PSDB; AA249636.
XX
XX Serum free defined medium useful for the efficient culture of stem
XX cells used for production of hemoglobin -
XX
XX Example 6; Fig 10; 61pp; English.
XX
XX The present sequence is R154C truncated human Epor (erythropoietin
XX receptor). Transfection of constitutively active Epor(R154C) by
XX electroporation into a cytokine-dependent cell line supports cell
XX population expansion in the absence of exogenous cytokines. Mutant human
XX Epor is used in treatment of disorders related to inadequate Epor
XX signaling. The transfected cells may also used in gene therapy to treat
XX cancer, infectious diseases (e.g. HIV), sickle cell anaemia, and
XX conditions related to abnormal expression of erythropoietin.
XX
XX Sequence 438 AA:
SQ
Query Match 99.3%; Score 1186; DB 21; Length 438;
Best Local Similarity 99.6%; Pred. No. 2.1e-111;
Matches 224; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
OY 1 APPPNLPDRKFEKALLAARGPEELCTFERLEDVLCFWEBAASAGVGNGNYSFSTOLE 60
DB 25 appnlpdkfkfkaallaaarspeellctferledvlfweeaaagvgpnysfsygle 84
OY 61 DEPMKICRIHQAPRTARGAVRFWCSLPADTSSFVPLELRVTAAAGAPRYHRVHINEVVL 120
DB 85 depmkicrlhgaprtargavrfwscslpadtsstfvplelrvtaaagapryhrvihnervl 144
OY 121 LDAPVGLVARLADSGHVYLRMLPPETPMTHIRYEVDSAGNGAGSVORVEILEGRTE 180
DB 145 ldapvglvarladsghvylrmlppetpmtshiryevdvsagngagsvqrveilegrte 204
OY 181 CVLSNLRGRTYTFNARARMAEPSEFGFSANSEPVSLTSPSLD 225
DB 205 cvlsnlrgtrtytfnavrarmaepsfgfswsawsepvsltlpsld 249
RESULT 10
AAB21686
ID AAB21686 standard; peptide; 211 AA.
XX
XX AAB21686;
XX
XX 21-DEC-2000 (first entry)
XX
XX Human mature erythropoietin receptor EPOR extracellular domain #2.
XX
XX Ligand: cell surface receptor; erythropoietin; EPOR; human;
XX
XX protein design automation; PDA.
XX
XX Homo sapiens.
XX

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XX
XX WO200047612-A2.
XX
XX 17-AUG-2000.
XX
XX 11-FEB-2000; 2000WO-US03665..
XX
XX 11-FEB-1999; 99US-0120009.
XX
XX 29-APR-1999; 99US-0131674.
XX
XX (XENC-) XENCOR INC.
XX
XX Luo P, Dahljat B;
XX
XX WPI: 2000-549135/50.
XX
XX Screening for ligand analogs and agents which modulate ligand-receptor
XX binding, comprises adding a test ligand to a non-naturally occurring
XX cell surface receptor analog -
XX
XX Example 1; Fig 8; 82pp; English.
XX
XX The present invention relates to a method for screening for a ligand
XX analog, comprising adding a candidate ligand to a non-naturally occurring
XX cell surface receptor analog e.g. erythropoietin receptor (EPOR), and
XX determining the binding of the ligand to the analog. The present sequence
XX is a mature human erythropoietin receptor (EPOR) extracellular domain.
XX Protein Design Automation was carried out on the present sequence, so
XX that it may be used in the present invention as a cell surface receptor
XX analog.
XX
XX Sequence 211 AA:
SQ
Query Match 93.1%; Score 1112; DB 21; Length 211;
Best Local Similarity 100.0%; Pred. No. 2.5e-104;
Matches 211; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY 10 KFESKALLAARGPEELCTFERLEDVLCFWEBAASAGVGNGNYSFSTOLEDEPMKICRI 69
DB 1 kfeskaallaaargpeellctferledvlfweeaaagvgpnysfsygledepwklcrl 60
OY 70 HQAPRTARGAVRFWCSLPADTSSFVPLELRVTAAAGAPRYHRVHINEVVLDPAPGLVA 129
DB 61 hgaprtargavrfwscslpadtsstfvplelrvtaaagapryhrvihnervlldapvglva 120
OY 130 RLADSGHVYLRMLPPETPMTHIRYEVDSAGNGAGSVORVEILEGRTECVLSMLRGR 189
DB 121 rladesghvylrmlppetpmtshiryevdvsagngagsvqrveilegrtecvlsnlgr 180
OY 190 TRYTFNARARMAEPSEFGFSANSEPVSLT 220
DB 181 trytfnavrarmaepsfgfswsawsepvsltl 211
RESULT 11
AAR06511
ID AAR06511 standard; protein; 507 AA.
XX
XX AAR06511;
XX
XX 04-JAN-1991 (first entry)
XX
XX EPO receptor sequence deduced from DNA of clone 190.
XX
XX Erythropoietin; Diamond Blackfan anaemia; polycythemia vera.
XX
XX Mus musculus.
XX
XX Key Location/Qualifiers
FH Peptide 1..24
FT /label=signal peptide 25..248
FT Domain

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FT		/label=extracellular domain
FT		/note=EPO binding region
FT	Domain	248..271
FT	Domain	/label=transmembrane domain
FT	Domain	272..507
FT	Modified-site	/label=intracellular domain
FT	Modified-site	75..77
FT	Modified-site	/label=N-linked_glycos
FT	Modified-site	182..184
FT	Modified-site	/label=N-linked_glycos
PX		
PN	WO9008822-A.	
PX		
PX	09-AUG-1990.	
PX		
PF	01-FEB-1990;	90WO-US00635.
PR	03-FEB-1989;	89US-0306503.
PX	(GENE-) GENETICS INST INC.	
PA	(WHIT-) WHITEHEAD INST.	
PX		
PI	D'andrea A., Wong G;	
PX		
DR	WPI: 1990-260931/34.	
DR	N-PSDB: AAQ05747.	
PT	Erythropoietin receptor and gene - used for developing reagents	
PT	and systems to control and study erythropoiesis.	
PX		
PS	Disclosure; Fig 1, 53pp: English.	
XX		
CC	The sequence was deduced from DNA from a clone isolated from a	
CC	cDNA library prepd. from uninduced murine erythro leukemia cells.	
CC	It is a type I transmembrane protein with binding affinity for EPO.	
CC	The gene and recombinant EPO receptor produced on expression of	
CC	the DNA are used to develop reagents and systems to control and	
CC	study erythropoiesis. It is believed that the EPO receptor is	
CC	dysfunctional in individuals with Diamond Blackfan anaemia, and	
CC	may be hyperactive in polycythemia vera.	
CC	See also AAR06512 (human EPO receptor).	
SQ	Sequence 507 AA;	
QY	Query Match 82.3%; Score 982.5; DB 11; Length 507;	
	Best Local Similarity 83.1%; Pred. No. 9.7e-91;	
	Matches 187; Conservative 13; Mismatches 24; Indels 5; Gaps 1;	
QY	1 APPRLPPPKFESKALLAARGPEELCTERLENDLVCFWEAAAGVGPNGTFSYOLE 60	
	: : : : : : : : : :	
Db	25 apspslppkfstkaallastysgeellftqplledlvcfweaaasgm-dfnysfyqe 83	
	: : : : : : : : : :	
QY	61 DEPMWLICRHQAPTRGAVRFWCSLPDTASFEVLLELRVTAAAGAPRYHRVTHINEYL 120	
	: : : : : :	
Db	84 gestscschngapkygsyvfcsiprtadstsfylelqvteasgspyrllihnevv1 143	
	: : : : : : : : : :	
QY	121 LDAPVGLVARLADBSGHVILRWLPPEPPMTSHIREVDVASGANGSVORVEILEGRTE 180	
	: : : : : : : : : :	
Db	144 ldapglllarraegshvlltwlpppgamtlhlryevdvasangagtgqrvevlegzte 203	
	: : : : : : : : : :	
QY	181 CVLSMLKRTTRTFPAVRARMAEPSSGGWSAWSEPVSLITPSDLD 225	
Db	204 cvlsmlrgtgytlfvartmaepssfgfwsawsepasiltsaldld 248	
RESULT 12		
AAR47517		
ID	AAR47517 standard; Protein; 507 AA.	
XX	AAR47517;	
AC		
XX		
OT	24-JUN-1994 (first entry)	

[illegible]

Db 144 lalapagllarreeegshvrlwlpdpapmtlhiryevdsagnraggtgrvelegpte 203
QY 181 CVLSNLRGRTYTPFAVRARAEPSGCFWSANSEPSILTPSDLD 225
Db 204 cvlsnlrggtrlytfavrarmaepsfsgfwsawsepaslltas 248

Db 204 cvlsnlrggtrlytfavrarmaepsfsgfwsawsepaslltas 245

Search completed: August 28, 2002, 17:31:06
Job time: 1453 sec

RESULT 15

AAR50326
ID AAR50326 standard; Protein; 265 AA.
XX
AC AAR50326;
XX
DT 19-OCT-1994 (first entry)
XX
DE Mouse soluble EPO receptor protein fragment.

XX Murine; soluble; erythropoietin; EPO; receptor protein; SEPO-R; drug;
KW antigen; diagnostic agent; biochemical reagent.
XX
OS Mus musculus.

XX Key Location/Qualifiers
FT Peptide 1..25
FT /note= "Signal peptide"
FT Protein 26..265
FT /note= "Mature EPO-R fragment"

PN JP06038787-A.

PD 15-FEB-1994.

PF 04-MAR-1992; 92JP-0082865.

PR 04-MAR-1992; 92JP-0082865.

PA (SNOW) SNOW BRAND MILK PROD CO LTD.

DR WPI: 1994-094847/12.

DR N-PSDB: AAQ44853.

PT Soluble erythropoietin receptor protein - and DNA coding for
PT SEPO-R, useful as diagnostic reagent

PS Disclosure: Page 5-6; 9pp; Japanese.

CC This sequence represents a fragment of the murine soluble erythro-
CC poietin (EPO) receptor protein (SEPO-R). This protein is able to
CC bind to EPO and has antigenicity as an EPO receptor. The molecular
CC weight of the full length protein is pref 33 or 29 kD. The protein
CC is useful as a drug, as a diagnostic agent and a biochemical reagent.

SQ Sequence 265 AA:

Query Match 80.9%; Score 966.5; DB 15; Length 265;
Best Local Similarity 82.9%; Pred. No. 1.8e-89;
Matches 184; Conservative 13; Mismatches 24; Indels 1; Gaps 1;

QY 1 APPNLPDPKFEKSKAALLAARPEELCTFERLEDIVCFWEBAASAGVPGNYSFSYQLE 60
Db 25 apspslpdpkfteskaallastgseelctgrledivcfweaasgm-dfnysfsgyle 83
QY 61 DEPWLCRLHOAPRTAGARFMCSLPTADTSSFVPLELAVTAAGAPRYRYIHINEVVL 120
Db 84 gestksclhgeplrvsgvrlwslptadtsfvpelqvtleasgspryhrlhinevvl 143
QY 121 IDAPVGLVARLADSESGHVVLRMLPPETPMTSHIRYEVDSAGNGAGSVORVEILEGRTE 180
Db 144 lalapagllarreeegshvrlwlpdpapmtlhiryevdsagnraggtgrvelegpte 203
QY 181 CVLSNLRGRTYTPFAVRARAEPSGCFWSANSEPSILTPS 222

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